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The dark triad of personality and hero/villain status as predictors of parasocial
relationships with comic book characters

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Public Significance Statement

This study suggests that comic book readers with a more grandiose sense of self perceive a unique and meaningful bond between the self and comic book characters.

The dark triad personality trait of narcissism consistently predicted formation of parasocial relationships with comic book characters. Participants with a villainous favourite character showed an increased desire to meet this character when the participant was also high in narcissism.

Abstract

While a breadth of literature exists on the formation of parasocial relationships (PSRs) with celebrity figures and fictional characters across an array of mediums, there remains a distinct gap in understanding of PSR engagement with comic book characters. As comic books present unique and enduring opportunities for PSR development, this study will address this gap through exploration of dark triad personality traits and hero/villain character choice as predictors of PSR dimensions in 277 adults. In the context of comic books, survey results indicate that, those who identified with a heroic character displayed higher levels of narcissism and were more likely to turn to their favourite character for guidance, to express desire for face-to-face contact with them and to believe they hold a level of intimacy with the character. Character choice also predicted the guidance and desire for face-to-face contact dimensions of PSRs, with these dimensions being higher for heroic characters. Narcissism was the only dark triad trait to consistently predict increased guidance seeking, desire to engage in face-to-face contact, and elevated feelings of intimacy and familiarity with one's favourite character. Character choice was found to moderate the effect of narcissism in predicting desire for face-to-face contact. For those whose favourite character was a villain, desire substantially increased with levels of narcissism. This suggests that comic book based PSR formation may reflect a self-centred interpersonal process, where readers with a more grandiose sense of self perceive a unique and meaningful bond between the self and comic book characters.

Keywords: The Dark Triad, Parasocial Relationships, Parasocial Interaction, Comic Books, Mediated Relationships

Background

The range of opportunities for engagement with media personalities and fictional characters has expanded extensively since the proliferation of the internet. Where early interactions with such personalities were restricted to viewing or listening at fixed times, and using limited technology, the mode and timing of potential interactions is now limitless. As such, the intimate, one-sided, non-mutual relationships which comprise parasocial interactions (PSIs; Horton & Wohl, 1956), also known as parasocial relationships (PSRs), have been adapted to include multidimensional aspects (Tsay & Bodine, 2012) and have been shown to vary dependant on the specific nature of the target (Ingram & Lockett, 2017). Within the present article we examine fans of comic books to further develop the suggestion that the pattern and reasons for PSRs can vary dependent on the target. Furthermore, we assess a novel factor which may contribute to formation PSRs: dark triad personality traits.

Parasocial Relationships

Parasocial interactions, often discussed interchangeably with parasocial relationships (PSRs)¹, have been extensively examined within the uses and gratifications approach to media consumption. Much of the initial research on PSRs focused on one-sided relationships with real, as opposed to fictional, personalities, e.g., news readers (Levy, 1979). Latterly researchers have also examined PSRs with characters such as those from soap operas (Perse & Rubin, 1989) and popular books and movies (Ingram &

¹ Both the terms parasocial interaction and parasocial relationship have previously been used to refer to a continuous one-sided relationship with a media character or personality. Within the current paper we will use the term parasocial relationships (PSRs) for consistency. However, please note that the scale used to measure this variable is named the parasocial interaction scale.

Luckett, 2017). Differing types of PSRs have been highlighted by Giles (2002), who noted that PSRs with personalities who directly address the audience are ‘first-order’ whilst those with fictional characters are ‘second-order’. It may be expected that PSRs are stronger for personalities whom an individual can actually meet. However, it has been suggested that parasocial relationships, as a predictor of enjoyment, were stronger for fictional programming (Nabi, Stitt, Halford & Finnerty, 2006), and that, for individuals with specific engagement motives, PSRs can be manifested in a desire to meet a fictional character (Ingram & Luckett, 2017). Although, critically, when PSRs are based on live action TV or movies it may be difficult for viewers to discern the character from the actor.

Reasons for engaging in PSRs have also been extensively explored, with some research considering PSR as a compensatory social activity. For example, PSR has demonstrated positive associations with loneliness and shyness (Schiappa, Allen & Gregg, 2007) and anxious-ambivalent attachment (Cole & Leets, 1999). These findings could be seen to suggest that PSRs may have the potential to act as an alternative for those lacking in face-to-face interpersonal interaction due to the similarities between parasocial relationships and the close social relationships encountered in real life (Armstrong & Rubin, 1989; Cohen, 2004). However, studies have also suggested that PSRs may be used to supplement or develop real-life interpersonal relationships, with fans of specific media engaging in certain aspects of PSRs to increase sociability (Ingram & Luckett, 2017). Such contrasts highlight the necessity of treating PSRs as a multidimensional construct as opposed to as a singular composite factor.

Differing dimensions of PSR have been identified. Through content analysis of letters written by viewers of Indian soap operas, Papa et al., (2000) and Sood and Rogers (2000) identified differing dimensions of cognitive, affective and behavioural

engagements which may make up a PSR which are reflected in components which contribute to enjoyment of media content (Nabi & Kremer, 2004). Tukachinsky (2010) identified two facets of parasocial relationships, parasocial friendship and parasocial love, to distinguish friendship from attraction or romantic aspects. Tsay and Bodine (2012) noted that in addition to viewing of characters or persona, individuals may also engage in interaction with the target of a PSR through online activity. Indeed, for certain specific media, viewers may engage in physical activities which allows interaction within fictional characters or their environments (e.g. visiting Disney World, Universal Studios etc.) To further examine the multidimensional nature of PSRs, Tsay and Bodine developed a revised version of the Rubin, Perse and Powell (1985) Parasocial Interaction Scale (PSI Scale). Four dimensions emerged each of which represent different aspects of a PSR. These are: *guidance* - where the participant may look upon the character as a role model or for advice; *face-to-face desire* – where the participant wishes to communicate with the character; *intimacy* – where the participant wishes to learn more about the character; and *familiarity* – the degree of knowledge or familiarity a participant has with the character. Tsay and Bodine then demonstrated that these four dimensions could be predicted by differing combinations of personality, motives for viewing and interpersonal needs. Building on this work, Ingram and Lockett (2017) further examined these dimensions within fans of specific media. Patterns of personality and motives which predicted the four dimensions differed across these two studies. These differences provide additional support for the multidimensional nature of PSRs. Variation in the relationship of the PSR dimensions, to personality in particular, are likely to be media or genre specific.

PSRs and comic books

Comic book sales in the US and Canada alone have increased exponentially from \$805 million in 2012 to \$1.015 billion in 2017 (Comichron, 2017), arguably in part due to the box office success of superhero movie franchises such as the Avengers (Marvel) (Burke, 2015). As many fans make the transition from engagement with comic-based movies to the comic medium itself, development of an in-depth understanding of how and why readers associate with certain comic book characters has never been timelier. Further, the popularity of comic conventions is booming across the globe – In recent years, MCM London has attracted attendance rates of 133,156 (MCM, 2017), figures reached 180,000 for New York Comic Con 2016 (Acuna, 2017), and a record-breaking 550,000 attended Comiket Japan (Comiket, 2017). Thus, comic books are now promoted to a far wider audience than in previous decades, when they were very much considered a sub-cultural activity (Lopes, 2006).

The comic book medium presents a unique opportunity to understand how people interact with an enduring character in both literary form, and often in a subsequent live action movie format. Popular novel series, often considered for their parasocial potential, such as JK Rowling's Harry Potter (Ingram & Luckett, 2017) and Suzanne Collins' The Hunger Games (Liebers & Schramm, 2017) expose readers to characters within a limited timeframe. While fans can re-engage with the novels as and when desired, once the series is complete, they no longer have access to new aspects of that character's life. In other words, their journey with that character is complete. In contrast, many popular comic books series are open-ended, with alternate timeline revamps such as DC Comic's New 52 in 2011 and Rebirth in 2016, allowing unlimited potential for new and reimagined content for their popular monthly titles (Ching, 2016; Hyde, 2011). With Batman making his initial appearance in 1939 in Detective Comic #27, fans have been able to follow his

experiences and behaviours on a monthly basis for almost 80 years so far. Further, many characters, such as Marvel's Deadpool and DC's Harley Quinn (Johnston, 2013), demonstrate the ability to break the 'fourth wall' (i.e. engage directly with the reader). This potential for extended interaction presents an interesting opportunity to explore PSRs, as the consistency of character availability may strengthen the likelihood of significant and meaningful bonds being constructed.

Giles (2002) identified three levels of PSRs dependent upon the potential for real-life interaction with the PSR target. First-order PSRs are those formed with a media personae or celebrities, with whom the likelihood of face-to-face interaction is low, but still possible. In contrast, second-order PSRs are described by Giles as 'inauthentic' figures; in other words, a character who is portrayed by an actor. In this case, the individual could interact with the actor who embodies the character, but it would be impossible to engage directly with the character in an authentic way. Finally, third-order PSRs are formed with entirely fictional characters who are not embodied or represented by a real-life individual. While traditionally, comic books were more likely to facilitate third-order PSRs, the recent growth in comic book movies and TV shows (Dowd, 2015) has provided increased access to human embodiments of fictional comic book characters. This may allow people to form both second-order and third-order PSRs, depending on the outlet with which they engage. However, specific comic book characters are often portrayed by multiple actors across any given period. For example, Batman has been played by 9 different actors since his first live action appearance in 1943, only two of whom have returned to the role more than once (Aquilone & Leane, 2017). Therefore, the current study will focus on third-order PSRs, exploring specifically the relationships formed by comic book readers.

Comic book protagonists and antagonists generally take the form of prototypical heroes/superheroes and villains/supervillains. Eden and colleagues (2015) found that the general public believed that both fictional heroes and villains were in violation of morality, but with differing motives. Heroes were thought to be prone to such violations in order to save or protect those around them; whereas villain morality violations were considered to be more duplicitous. Further, research indicates that those who are primed with supervillain rather than superhero stimuli display less prosocial behaviour during a helping task (Peña & Chen, 2017), suggesting that simple exposure to heroic versus villainous characters has the potential to influence social behaviour. While no research, to date, has explored the impact of comic book character typology on PSR formation, literature on other forms of media suggests that PSR are more likely to be formed with fictional television show characters who are neutral or liked, as opposed to those who are disliked (Tian & Hoffner, 2010). This suggests that, in the context of comic books, PSR may be stronger with heroic rather than villainous characters. With this in mind, the present study will explore whether personality is associated with favouritism towards a heroic or villainous character; and whether either category is more or less associated with the formation of PSRs.

PSRs and Personality

As an individual's personality is likely to motivate their media preferences (Weaver, 2003), the influence of personality characteristics on media consumption fits comfortably within the uses and gratifications framework (Blumler & Katz, 1974). Much of the research on links between media consumption and personality focuses on TV viewing preferences (Weaver, 2003), contemporary movies and popular music (Weaver,

1991). However, broader consideration of the relationship of leisure pursuits to personality has also been demonstrated (Kraaykamp & van Eijck, 2005), specifically these authors demonstrated that differences in big 5 personality traits can play a role in determining book reading preferences. With individuals high in openness preferring literature and suspense novels, while those low in emotional stability, and high in friendliness and conscientiousness read more romantic fiction. Note that reading preferences were limited to literary novels, literature in a foreign language, suspense novels and romantic novels. Therefore, although this study gives a broad overview of the relationship between personality and reading preferences, specific links between personality and use of a range of reading genres has not been assessed.

More recently, Eysenckian traits of personality (extraversion, neuroticism and psychoticism; Eysenck, 1966) have been shown to predict engagement in parasocial relationships with media characters, with key traits varying dependent on the nature of media character under examination (Ingram & Luckett, 2017; Tsay & Bodine, 2012). In examining a broad context of relationships with TV personalities and characters Tsay and Bodine found neuroticism to be positively associated with all PSR dimensions and suggested that those high in neuroticism use PSRs as an alternative to face to face relationships. However, in contrast, when examining PSRs limited to characters from the Harry Potter book series, Ingram and Luckett (2017) found neuroticism was only a weak predictor of the guidance dimension for participants who based their responses on the book characters exclusively (as opposed to the movie representations of those characters). In addition, this study found extraversion predicted guidance and face-to-face desire in relation to their favourite Harry Potter character, while agreeableness predicted intimacy and familiarity. The contrasting nature of these studies stands only to further demonstrate

the multidimensional and genre-specific nature of PSRs. We would not expect the same factors which predict relationships with TV personalities to predict relationships with fictional characters.

The Dark Triad of Personality

While consideration of the associations between Eysenckian traits and PSRs has increased, as detailed above, the impact of more aversive personality traits on PSR development is yet to be explored. Previous research indicates that identifying as a villainous character, as opposed to a heroic one, in video games increases antisocial behaviour that is 'avatar-consistent' both in gameplay (Yoon & Vargas, 2013) and in the real world (Rosenberg, Baughman, & Bailenson, 2013). As character affiliation has the propensity to influence real world behaviour, it is important to explore factors that may predispose an individual to form bonds with a villain, rather than a hero, when engaging with media characters. Thus, the present work will investigate whether the dark triad personality traits may offer further insight into the characters chosen for parasocial engagement, and the specific nature of the associated parasocial relationship. The dark triad (DT) comprises three inter-related but distinct aversive personality constructs (Machiavellianism, narcissism and psychopathy; Paulhus & Williams, 2002), all of which share an underlying callous, manipulative and disagreeable nature (Carton & Egan, 2016; Egan, Change & Shorter, 2014). As research exploring the DT constructs has increased exponentially, its components are well-defined in subclinical populations. Machiavellianism is reflected by a calculating and manipulative approach to social interaction alongside a disregard for morality (Deluga, 2001). While psychopathy is characterised by a number of aversive interpersonal and behavioural characteristics (e.g.

callousness, lack of empathy, poor impulse control; Douglas, Bore, & Munro, 2012). Narcissism is similarly associated with an exploitative nature, together with chronic positive self-presentation, feelings of superiority and hypersensitive ego-threat monitoring (Campbell & Miller, 2011; Horvath & Morf, 2009).

The Dark Triad and PSRs

The only DT trait that has received marginal attention from the PSR literature is narcissism, though it has exclusively been considered in relation to the formation of celebrity (non-fictional) PSRs. One such study indicated that the covert subcomponent of narcissism (one that is undermined by poor or fluctuating self-esteem) is predictive of social and emotional connectedness to a self-selected celebrity figure (Greenwood, McCutcheon, Collisson & Wong, 2018). However, even when controlling for self-esteem, narcissism has still been associated with heightened and potentially problematic celebrity interest (Ashe, Maltby & McCutcheon, 2005). This included the reporting of an intense and unique bond with the individual, and a willingness to commit illegal activity if requested by said favourite celebrity demonstrating a perceived bond so strong it interfered with the individual's daily life. Further, while research is limited, initial findings suggest that those high in Narcissism are more likely to display positive engagement with fictional villains (Kjeldgaard-Christiansen et al., 2019) and are drawn to characters who display similarly narcissistic features (Gibson et al., 2018). As narcissism is associated with suspicion, intimacy avoidance and hyperactive ego-threat monitoring (Miller, Price, Gentile, Lynam & Campbell, 2012), it is possible that a PSR offers a less threatening alternative to face-to-face social engagement (Greenwood et al., 2018). In line with this, it is possible that the formation of a PSRs with a fictional character

may present even less potential for negative evaluation or ego-threatening interactions. We therefore predict that narcissism will similarly be associated with increased PSRs with comic book characters, and those who indicate that they favour a villainous character will display higher levels of narcissism.

While psychopathy has not been considered in relation to PSRs, research suggests that those who are high in psychopathic traits tend to hold more positive views towards others who display the same characteristics (Durand, Plata & Arbone, 2017), indicating that those high in psychopathy are somewhat drawn to others high in the trait. One study (Holtzman & Strube, 2013) suggests that those high in psychopathy are attracted to individuals because they are either physically attractive or show signs of wealth or status, as aligning with such people might be of social benefit. It may be the case that those high in psychopathy are drawn to the social status of heroic characters for exploitation. Alternatively, the low level of empathy associated with psychopathy (Seara-Cardoso, Neumann, Roiser, McCrory, & Viding., 2012) may allow these individuals to assimilate with villainous characters, through a higher tolerance threshold for their villainous acts. Further, research indicates that those high in the interpersonal aspects of psychopathy, compared with those low in the trait, express a preference for media depicting violent and/or evil acts (e.g. horror films; Battista, 2011). Thus, we expect that those who indicate that their favourite comic book character is a villain will display higher levels of psychopathy.

Similarly, Machiavellianism has also been linked to affiliation with individual who demonstrate similar traits to themselves at both a real-life and fictional level. For example, Ináncsi et al. (2016) found that those high in Machiavellianism favour potential romantic partners who share their traits and ideals, giving less weight to factors like

trustworthiness, warmth, agreeableness, and more to heightened status and resources. Furthermore, recent research indicated that those high in Machiavellianism are also more attracted to dark fictional characters (villains and morally questionable protagonists; Black et al., 2019), arguably due to a level of homophily with those characters. Given this, albeit limited, initial evidence it is predicted that those whose favourite character is a villain will demonstrate heightened levels of Machiavellianism.

In terms of interpersonal engagement more widely, psychopathy and Machiavellianism are both associated with a highly parasitic approach to relationships (Jonason, Duineveld & Middleton, 2015), opting only to engage where the personal rewards are substantially higher than the effort or energy required on their part. As fictional character PSRs are, by definition, one-sided relationships, it seems there is little opportunity for those high in psychopathy and Machiavellianism to utilise manipulative tactics for personal gain. So, while we believe that those high in Machiavellianism and psychopathy may show a preference for villainous characters, we expect that these traits will demonstrate a negative association with the PSR factors.

The Current Study

The current study aims to identify whether the dark triad personality traits (Machiavellianism, narcissism and psychopathy) are associated with the formation of dimensions of parasocial relationships (guidance, face-to-face desire, intimacy and familiarity) with comic book characters. In addition, it will assess if the level of dark triad traits and PSR dimensions differs for fans who identify their favourite characters as villains as opposed to heroes. While the personality and PSRs literature is growing, consideration of dark personality traits, and of PSRs with characters from comic books

specifically, is non-existent. Therefore, this marks the first study to explore the predictive value of dark triad traits for engagement in PSRs with comic book characters reflecting different character typologies. Dark personality traits have been shown to influence first-order parasocial relationships (Ashe, Maltby, & McCutcheon, 2005; Greenwood et al., 2018) and interpersonal relationships (Jonason et al., 2015). This study will establish the relationship between these traits and parasocial relationships. It is possible that individuals high in those traits use media to satisfy interpersonal needs as they would face-to-face relationships. Those with strong PSRs may find that these media interactions begin to interfere with daily life. Based on the literature outlined above, three specific hypotheses have been developed.

H1: Participants who indicate their favourite character is a villain will be higher in dark triad traits.

H2: Character choice (hero versus villain) will predict PSR dimension scores in that hero characters will be associated with increased PSR.

H3: Narcissism will be positively associated with PSR dimension scores.

H4: Psychopathy and Machiavellianism will be negatively associated with PSR dimension scores.

H5: Character choice (hero versus villain) will moderate significant associations found between dark triad traits and PSR dimensions.

Method

Participants and Procedure

277 participants, ranging in age from 16 to 57 ($M = 28.40$, $SD = 8.41$), completed an online questionnaire using Question Pro Online Survey Software (<http://www.questionpro.com>). The link to the survey was posted on institutional and personal research profiles on social networking sites (Twitter and Facebook). Participants were also recruited through opportunity sampling at three local comic conventions, where they completed the questionnaires using a tablet. Additional recruitment took place through Amazon Mechanical Turk (<https://www.mturk.com>) where participants received a reward of £0.05 for taking part in the study. Recruitment via social media/at conventions versus recruitment via Amazon Turk was recorded and controlled for in analysis. On accessing the questionnaire, participants provided demographic information before completing the Dirty Dozen Scale. They then completed a series of questions regarding their engagement with comic books and cosplay including “Who is your favourite comic book character?”, “Do you see your favourite comic book character as a hero or a villain?”, “What is your favourite comic book series (e.g. Batman, Preacher, Harbinger etc.)?”, and “How many times have you cosplayed your favourite comic book character?”. Only the first two questions (favourite character and hero/villain status) were used in this study, whilst the others were reserved for another project on cosplay engagement. Participants then responded to the Parasocial Interaction Scale and five further questionnaires (Ten Item Personality Inventory (Gosling, Rentfrow & Swann, 2003), Character Traits Scale and Wishful Identification Scale (Hoffner, 1996), Homophily Scale (McCroskey, Richmond & Daly, 2013), Transport Narrative Questionnaire (Green & Brock, 2000) which were reserved as part of another project.

Two participants did not report whether their favourite character was a hero or a Villain, 231 participants identified their favourite character as a hero and 44 participants

identified their favourite character as a Villain. Some of the most popular heroes were Batman, Spiderman, Superman and Wonder Woman; while the most popular villains were Harley Quinn, Joker, Deadpool and Poison Ivy. Three characters who were rated as a hero by some and a villain by others were Harley Quinn, Deadpool and Catwoman. Interestingly, all three of these characters have been seen to make a transformation from villain to ‘anti-hero’ (Curtis & Cardo, 2018; McCartney & Cheong Su Man, 2020) - a hero who lacks the stereotypical attributes of a heroic character, but still ‘saves the day’. These characters, in comparison to arguably more ‘cut and dry’ villains (e.g. Joker, Scarecrow) have all been part of significant storylines where they adopt a more prosocial role and become the protagonist, rather than antagonist, of the story. It is therefore probable that hero/villain status varied depending upon which version of these characters the reader had been exposed to. However, as we are interested in how participants perceive their favourite character’s morality, rather than societal markers of hero/villain status, we do not believe this had any negative impact on our aims.

Measures

Dark Triad. Dark triad traits were measured using the Dirty Dozen Scale (Jonason & Webster, 2010). Participants responded using a 9-point Likert scale, 1 (strongly disagree) to 9 (strongly agree), to twelve items which assessed the socially undesirable personality traits which form the Dark Triad. The trait narcissism relates to self-centeredness and vanity, items for this trait included “I want others to admire me” and “I tend to seek prestige or status”. The trait psychopathy relates to selfishness and remorselessness, items for this trait included “I tend to lack remorse” and “I tend to be callous or insensitive”. The trait Machiavellianism relates to self-interest and a disregard

for morality, items for this trait included “I have used deceit or lied to get my way” and “I tend to exploit others towards my own end”. Each sub-scale of the dirty dozen had four items. The Cronbach’s alphas for each trait were .85 (narcissism), .85 (psychopathy), .89 (Machiavellianism), indicating good internal reliability of test scores in the current study. Prior literature supports that this tool demonstrates impressive construct, convergent, and discriminant validity and test–retest reliability (Jonason & Luévano, 2013; Jonason & Webster, 2010).

Parasocial Relationships. The four dimensions of parasocial relationships were measured using of the 18 items of the Parasocial Interaction Scale by Tsay and Bodine (2012). The scale was adapted to specifically ask participants about their relationships with comic book characters. As suggested by these authors, items in the scale were divided into four subscales representing the four dimensions of PSRs, while 10 additional items were excluded from analysis as they were unloaded in Tsay and Bodine’s factor analysis. The dimension of guidance relates to where participants may seek advice from the character or look upon them as a role model; items for this dimension included “I use advice that I learn from my favourite comic book character” and “I treat my favourite comic book character as a role model”. The dimension of face-to-face desire relates to the participants interest in meeting the character in person or communicating with them; items for this dimension included “I would be happy to meet my favourite comic book character in person” and “If given the opportunity I would contact my favourite comic book character”. The dimension of intimacy relates to when the participant feels closeness and comfort with the character; items for this dimension included “I have an intimate connection with my favourite comic book character” and “I see my favourite comic book

character as a close friend”. The dimension of familiarity relates to the level of knowledge the participant has about the character; items for this dimension include “I am familiar with the habits of my favourite comic book character” and “I have a good understanding of my favourite comic book character”. A 7-point Likert scale, 1 (strongly disagree) to 7 (strongly agree), was used to record participant agreement with each item. The Cronbach’s alpha of the subscales of Parasocial Interaction Scale were .94 (guidance, 8 items), .91 (face-to-face desire, 4 items), .81 (intimacy, 3 items), and .76 (familiarity, 3 items), indicating strong internal reliability of test scores. Previous literature also supports the reliability of this measure (Ingram & Luckett, 2017; Tsay & Bodine, 2012).

Results

Descriptive statistics and correlations

Standardized z-scores in excess of ± 3.29 standard deviations from the mean were considered to be outliers as recommended by Tabachnick and Fidell (2013). This revealed that three participants were outliers on the familiarity PSR subscale ($z = -3.35$ in each case). All DT and PSR subscales were non-normally distributed and positively skewed. However, as the sample size was relatively large, this was not thought to be an issue for conducting regression analyses as the residuals were normally distributed. Effect sizes were determined using Hemphill’s (2003) empirically derived guidelines (small, $r < .20$; medium, $r = .20 - .30$; large, $r > .30$).

Age and gender. Descriptive statistics and correlations for the main study variables can be found in Table 1. Age demonstrated a significant negative correlation with PSR-guidance ($r = -.16, p = .008$), reflecting a small effect size. This indicates that

as age increases, tendency to seek guidance from one's favourite comic book character decreases. Independent samples t-tests identified no gender differences for any of the main study variables.

Character choice. As shown in Table 2, further independent samples t-tests indicated that narcissism ($t(273) = 2.631, p = .009$) was the only DT trait found to be significantly higher in those who indicated that their favourite comic book character was a hero (as opposed to a villain) demonstrating a medium effect size. This indicates that levels of psychopathy and Machiavellianism do not differ based on character choice, while narcissism was significantly higher in those who selected a heroic character, thus rejecting hypothesis 1. In addition, PSR-guidance ($t(273) = 3.639, p < .001$), PSR-desire ($t(273) = 2.477, p = .014$) and PSR-intimacy ($t(273) = 2.207, p = .028$) were all significantly higher in those whose favourite character was a hero, demonstrating small to medium effects (see Table 2); while no differences were found for PSR-familiarity. This indicates that, aside from familiarity, PSR formation is significantly higher for those who indicate a preferred heroic character, partially supporting hypothesis 2.

Associations between DT traits and PSR factors. Pearson's correlations demonstrated significant associations between DT traits and PSR. As shown in table 1, Narcissism was positively and significantly associated with all 4 PSR dimensions (medium to large effects), as was psychopathy (small to medium effects) and Machiavellianism (small to medium effects). This indicates that the dark triad traits are associated with increased guidance, face to face desire, intimacy and familiarity with regards to PSR.

Table 1. Descriptive statistics and Pearson's correlations among main variables ($n = 277$).

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|---|---------------------|---------------------|---------------------|-------------------------|----------------------|----------------------|---------------------|
| 1. Age | 1 | -.05 (-.70, .32) | -.05 (-.68, .29) | -.06 (-.69, .24) | -.16** (-1.59, -.24) | -.10 (-1.23, .09) | -.10 (-1.14, .08) | .05 (-.48, 1.13) |
| 2. Narc | | 1 | .45** (.33, .53) | .58** (.44, .62) | .40** (.40, .69) | .24** (.16, .47) | .36** (.30, .57) | .29** (.28, .65) |
| 3. Psych | | | 1 | .70** (.59, .75) | .25** (.19, .52) | .13* (.01, .34) | .21** (.11, .41) | .13* (.02, .42) |
| 4. Mach | | | | 1 | .31** (.29, .62) | .16** (.06, .40) | .23** (.15, .45) | .17** (.10, .50) |
| 5. PSR-Guid | | | | | 1 | .54** (.42, .63) | .65** (.50, .67) | .54** (.52, .75) |
| 6. PSR-Des | | | | | | 1 | .43** (.29, .49) | .50** (.49, .74) |
| 7. PSR-Int | | | | | | | 1 | .58** (.63, .89) |
| 8. PSR-Fam | | | | | | | | 1 |

Note. * = $p < .05$, ** = $p < .01$. 95% CI in parentheses.

Table 2. Comparison of DT and PSR factors by character choice.

| | Hero | | | Villain | | | <i>t</i> | <i>Cohen's d</i> | 95% CIs |
|------------------|----------|----------|-----------|----------|----------|-----------|----------|------------------|------------|
| | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | | | |
| Psychopathy | 231 | 3.85 | 2.07 | 44 | 3.34 | 2.05 | 1.488 | .258 | -.16, 1.17 |
| Narcissism | 231 | 4.64 | 1.99 | 44 | 3.83 | 1.71 | 2.533* | .437 | 1.81, 1.44 |
| Machiavellianism | 231 | 3.78 | 2.17 | 44 | 3.23 | 1.96 | 1.580 | .266 | -.14, 1.25 |
| PSR-Guidance | 231 | 4.65 | 1.41 | 44 | 3.79 | 1.55 | 3.639** | .580 | .39, 1.32 |
| PSR-Desire | 232 | 5.34 | 1.43 | 44 | 4.73 | 1.79 | 2.477* | .377 | .12, 1.09 |
| PSR-Intimacy | 231 | 4.15 | 1.65 | 44 | 3.56 | 1.45 | 2.207* | .380 | .06, 1.12 |
| PSR-Familiarity | 231 | 5.19 | 1.24 | 44 | 4.98 | 1.24 | 1.068 | .169 | -.18, .62 |

Note. * = $p < .05$, ** = $p < .01$.

Regression analyses

DT traits as predictors of PSR. Multiple linear regression analyses were conducted to identify the extent to which the DT traits (narcissism, psychopathy and Machiavellianism) could predict scores on each of the four PSR subscales (guidance,

face-to-face desire, intimacy and familiarity), controlling for data source, age and character choice (hero = 1; villain = 2). As recommended by Cohen (1988) for regression analysis, an effect size of $R^2 = .02$ was considered to be a small effect, $R^2 = .15$ was considered a medium effect and $R^2 = .35$ was deemed to be a large effect. As the variance inflation factors (VIF) for all variables fell under 10 (ranging from 1.021 to 2.327) and tolerance values all exceeded .2 (ranging from .430 to .979) there is no evidence of multicollinearity (Field, 2013).

Guidance. At step one, age and character choice accounted for a significant proportion of variance in PSR-guidance scores, as seen in Table 3. The addition of the DT variables resulted in a significant increase to R^2 (medium to large effect). However, in the final model, only age, character choice and narcissism were significant independent predictors of tendency to seek guidance from a comic book character. Collectively, these variables accounted for 21% of variance in guidance, with narcissism presenting as the strongest predictor.

Face-to-face desire. At step one, character choice was a significant predictor of PSR-desire, as seen in Table 4. The addition of the DT variables to the model resulted in a significant increase to R^2 (small to medium effect). At this final step, character choice and narcissism were significant independent predictors of desire to engage with one's favourite comic book character face-to-face. Collectively, these variables accounted for 8% of variance in this PSR factor (small effect), with narcissism presenting as the strongest predictor.

Intimacy. At step one, age and character choice were significant predictors of intimacy, contributing significantly to variance in PSR-intimacy scores, as seen in Table 5. The addition of the DT variables produced a significant increase to R^2 (small to medium

effect). In the final model, narcissism was the only significant independent predictor of feelings of intimacy towards a favourite comic book character, accounting for 13% of variance in this PSR construct.

Familiarity. At step one, age, character choice and data source did not predict significant variance in PSR-familiarity, as shown in Table 6. The addition of the DT variables produced a significant increase to R^2 (small to medium effect), making the overall model significant. In this final step, narcissism identified as the sole significant independent predictor of claimed familiarity with one's favourite comic book character. This model accounted for 7% of variance in familiarity scores, indicating a small effect.

Collectively, these models lend support for hypothesis 3, which proposed that narcissism would significantly predict all PSR dimensions in a positive direction. However, hypothesis 4 is not supported, as psychopathy and Machiavellianism did not negatively predict PSR.

Table 3. Hierarchical multiple regression predicting PSR-guidance with dark triad traits, controlling for age and character choice (n= 277).

| | R^2 | ΔR^2 | F_{change} | R^2_{change} | β | 95% CI | |
|------------------|-------|--------------|--------------|----------------|---------|--------|------|
| | | | | | | LL | UL |
| <i>Step 1</i> | .08 | .07 | 8.30 | .08 | | | |
| Age | | | | | -.20** | -.05 | -.01 |
| Character choice | | | | | -.24 | -1.43 | -.51 |
| Data source | | | | | .03 | -.26 | .45 |
| <i>Step 2</i> | .22 | .21 | 15.99 | .14 | | | |
| Age | | | | | -.16** | -.05 | -.01 |
| Character choice | | | | | -.18** | -1.17 | -.30 |
| Data source | | | | | -.02 | -.40 | .27 |
| Psychopathy | | | | | .03 | -.09 | .13 |
| Narcissism | | | | | .31** | .13 | .33 |
| Machiavellianism | | | | | .09 | -.05 | .17 |

Note. * = $p < .05$, ** = $p < .01$.

Table 4. Hierarchical multiple regression predicting PSR-desire with dark triad traits, controlling for age and character choice (n= 277).

| | R^2 | ΔR^2 | F_{change} | R^2_{change} | β | 95% CI | |
|------------------|-------|--------------|--------------|----------------|---------|--------|------|
| | | | | | | LL | UL |
| <i>Step 1</i> | .05 | .04 | 4.27 | .05 | | | |
| Age | | | | | -.11 | -.04 | -.01 |
| Character choice | | | | | -.18** | -1.20 | -.23 |
| Data source | | | | | -.10 | -.66 | .09 |
| <i>Step 2</i> | .10 | .08 | 5.10 | .05 | | | |
| Age | | | | | -.08 | -.04 | .01 |
| Character choice | | | | | -.14* | -1.06 | -.10 |
| Data source | | | | | -.12 | -.74 | .00 |
| Psychopathy | | | | | .00 | -.12 | .12 |
| Narcissism | | | | | .21** | .05 | .27 |
| Machiavellianism | | | | | .04 | -.09 | .15 |

Note. * = $p < .05$, ** = $p < .01$.

Table 5. Hierarchical multiple regression predicting PSR-intimacy with dark triad traits, controlling for age and character choice (n= 277).

| | R^2 | ΔR^2 | F_{change} | R^2_{change} | β | 95% CI | |
|------------------|-------|--------------|--------------|----------------|---------|--------|------|
| | | | | | | LL | UL |
| <i>Step 1</i> | .04 | .03 | 3.51 | .04 | | | |
| Age | | | | | -.14* | -.05 | -.00 |
| Character choice | | | | | -.14* | -1.17 | -.11 |
| Data source | | | | | .069 | -.18 | .64 |
| <i>Step 2</i> | .15 | .13 | 11.80 | .11 | | | |
| Age | | | | | -.11 | -.04 | .00 |
| Character choice | | | | | -.09 | -.92 | .10 |
| Data source | | | | | .03 | -.30 | .48 |
| Psychopathy | | | | | .05 | -.08 | .16 |
| Narcissism | | | | | .32** | .16 | .38 |
| Machiavellianism | | | | | -.01 | -.14 | .12 |

Note. * = $p < .05$, ** = $p < .01$.

Table 6. Hierarchical multiple regression predicting PSR-familiarity with dark triad traits, controlling for age and character choice (n= 277).

| | R^2 | ΔR^2 | F_{change} | R^2_{change} | β | 95% CI | |
|------------------|-------|--------------|--------------|----------------|---------|--------|-----|
| | | | | | | LL | UL |
| <i>Step 1</i> | .01 | -.00 | .77 | .01 | | | |
| Age | | | | | .03 | -.01 | .02 |
| Character choice | | | | | -.05 | -.59 | .23 |
| Data source | | | | | .05 | -.18 | .45 |
| <i>Step 2</i> | .09 | .07 | 7.62 | .08 | | | |
| Age | | | | | .06 | -.01 | .03 |
| Character choice | | | | | -.01 | -.43 | .36 |
| Data source | | | | | .02 | -.25 | .36 |
| Psychopathy | | | | | .00 | -.10 | .10 |

| | | | |
|------------------|-------|------|-----|
| Narcissism | .28** | .09 | .27 |
| Machiavellianism | .01 | -.10 | .11 |

Note. * = $p < .05$, ** = $p < .01$.

Moderation analyses

Character choice as a moderator. As narcissism was a significant predictor of all PSR dimensions, moderation was examined using Hayes' (2013) PROCESS macro with 5000 bootstrap samples (model 1) to examine interaction effect with character choice as a potential moderator. All continuous variables were mean centred. The interaction between character choice and narcissism was not significant in predicting PSR-guidance ($\beta = .24$, 95% CI = $[-.01, .48]$, $p = .060$), PSR-intimacy ($\beta = .17$, 95% CI = $[-.11, .46]$, $p = .232$), or PSR-familiarity ($\beta = .11$, 95% CI = $[-.11, .33]$, $p = .336$). However, the interaction was significant for PSR-desire ($\beta = .35$, 95% CI = $[.08, .62]$, $p = .012$) lending partial support to hypothesis 5. This interaction is plotted in Figure 1. The association between narcissism and PSR-desire was significant when character choice was low (i.e. hero; conditional effect = .13, 95% CI = $[.03, .22]$, $p = .007$) and high (i.e. villain; conditional effect = .48, 95% CI = $[.22, .73]$, $p < .001$). These reflect small and large effect sizes, respectively.

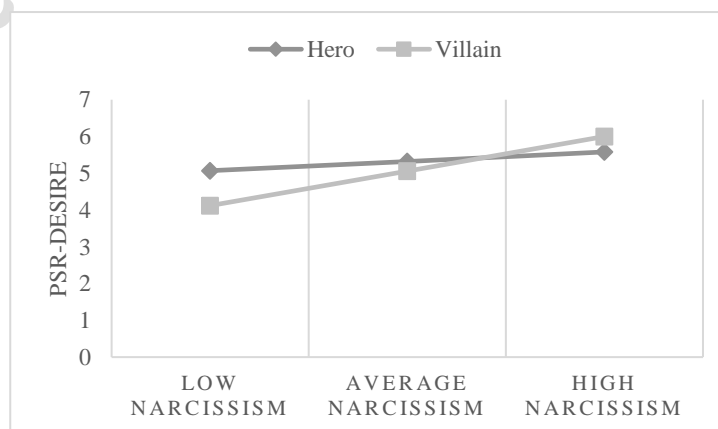


Figure 1. Simple slopes for narcissism predicting PSR-desire for hero and villain character choice.

Summary of analyses

Firstly, in contrast to hypothesis 1, those who indicated their favourite character was a hero were significantly higher in narcissism. However, character choice was also a significant predictor of guidance and desire, with both of these PSR dimensions being higher for heroic characters, partially supporting hypothesis 2. As predicted by hypothesis 3, narcissism consistently predicted increased guidance seeking, increased desire to engage in face-to-face contact, and elevated feelings of intimacy and familiarity with one's favourite comic book character. While associated at a univariate level in the opposite direction from that expected, Machiavellianism and psychopathy were not significant predictors of any of the four PSR components, rejecting hypothesis 4. Finally, moderation analysis indicated a significant interaction effect between character choice and narcissism in predicting face-to-face desire. This revealed that, for those whose favourite character is a hero, desire marginally increases with levels of narcissism; and for those whose favourite character is a villain, desire substantially increases with levels of narcissism. This indicates partial support for hypothesis 5.

Discussion

The aim of this study was to identify whether the dark triad personality traits (Machiavellianism, narcissism and psychopathy) were associated with the formation of PSR dimensions (guidance, face-to-face desire, intimacy and familiarity) with comic book characters, taking into account favourite character choice (hero versus villain).

In terms of DT traits, narcissism was found to be significantly higher in those who indicated that their favourite comic book character was a hero rather than a villain.

However, psychopathy and Machiavellianism levels did not differ between hero and villain supporters, collectively leading to the rejection of hypothesis 1. A key characteristic of narcissism is the chronic desire for approval and admiration from those others, which some researchers refer to as an ‘addiction to esteem’ (Baumeister & Vohs, 2001). As mentioned previously in this paper, people often believe that heroic characters are prosocial and act to benefit the greater good (Eden et al., 2015), indicating that heroes are perceived more positively. Research also denotes that people are more drawn to heroic characters, and identify with them more readily (Sanders, 2004). As such, it may be that comic book heroes demonstrate characteristics that those high in narcissism hope to emulate as a route to the admiration and adoration of others. On the other hand, those high in Machiavellianism and/or psychopathy tend to have a highly positive self-view, considering themselves to be superior, without the need for confirmation of that fact from others (Morf & Rhodewalt, 2001).

While significant at a univariate level, Machiavellianism and psychopathy were not significant independent predictors of PSR engagement, suggesting that original associations between these personality constructs and PSR variables were most likely a result of their interrelationships with narcissism. Potentially, those demonstrating traits of psychopathy and Machiavellianism may be less motivated to engage in PSRs, as these one-sided ‘third-order’ relationships provide little avenue for their manipulative and parasitic interpersonal approach to flourish (Jonason, Duineveld & Middleton, 2015). However, current findings do indicate that, in the context of comic book character PSRs, narcissism consistently predicts increased guidance seeking, increased desire to engage in face-to-face contact, and elevated feelings of intimacy and familiarity with one’s

favourite comic book character. This tendency for those high in narcissism to develop parasocial bonds was expected based on previous studies on personality and character interactions (Ashe et al., 2005; Greenwood et al., 2018). One reason why someone high in narcissism might also demonstrate high scores on the familiarity PSR dimension may be down to their self-enhancing tendencies. Empirical research consistently indicates that narcissists over-claim their knowledge and abilities in order to appear superior and to impress those around them (Paulhus, Harris, Bruce, & Lysy, 2003). Therefore, these individuals may similarly be motivated to claim more knowledge about their favourite comic book character (familiarity). In terms of claiming a close and intimate bond with a character, and a desire for face-to-face contact, this may be reflective of the narcissist's propensity for positive self-presentation. In attempts to omit a grandiose sense of self (Hart, Adams, Burton & Tortoriello, 2017) those high in narcissism may indicate a unique and superior connection with their favourite comic book character (intimacy), may believe that said character would be equally eager to meet them (face-to-face desire), and may claim that their behaviours and situational responses are akin to their favourite character (guidance). Indeed, research on the concept of homophily (i.e. the tendency to seek partners who are similar to oneself) supports that those who display narcissistic characteristics are drawn to real-life relationship partners who they believe to be similar to them (Keller, Blincoe, Gilbert, Dewall, Haak & Widiger, 2014, McNulty and Widman, 2013). Further still, recent work indicates that people are more likely to engage in a parasocial relationship with a fictional literary character more similar to themselves (Liebers & Schramm, 2017). Together, this provides further support for our earlier proposition that those who favour heroic characters are higher in this construct as they perceive themselves in an equally heroic light.

Further, narcissism as a consistent predictor of PSR dimensions relates both to previous work on fictional characters in movies (Ingram & Lockett, 2017) and, to a greater extent, work on media characters and TV personalities (Tsay & Bodine, 2012). As noted, research on dark triad traits and parasocial relationships highlights that vulnerable narcissists (i.e. those who demonstrate low or fluctuating self-esteem) score highly on celebrity attitude scales and that vulnerable narcissism predicts celebrity attitudes (Greenwood et al., 2018). In addition to supporting Greenwood et al.'s findings on parasocial relationships, our results relate to previous work on PSR dimensions. Recent research has determined that 65% of the variance in vulnerable narcissism can be explained by neuroticism (Miller et al., 2018), whilst vulnerable narcissism and neuroticism are almost identical in their correlational profiles of 176 external criteria (including general personality traits, pathological personality traits, attachments styles and affect). Within their study of Harry Potter fans, Ingram and Lockett (2017) found neuroticism was only a significant predictor of the guidance dimension for fans who based their responses on books alone. Responses based on books alone indicate third order PSRs with the series characters, as is the case with many of the relationships with comic book characters in the current study. The influence of narcissism and neuroticism on PSR may be particularly representative of third-order relationships. That is, participants who are high in these traits may be more likely to develop PSRs with targets which are fictional. Contrary to their hypotheses, Tsay and Bodine found neuroticism to be a consistent predictor of PSR dimensions. Explanations for the link between neuroticism and PSR include the provision of interpersonal need for gratification (Finn & Gorr 1988; Wang, Fink & Cai, 2008). Given the characterisation of narcissists as largely disagreeable (Campbell & Miller, 2011) it is possible that such individuals may prefer mediated

relationships to face to face ones, which bring risk of conflict. Further, as variants of narcissism have been associated with interpersonal antagonism and distrust (Miller & Maples, 2011), third order parasocial relationships may provide an excellent opportunity to gratify interpersonal needs without the risks of developing a face to face relationship. It is a limitation of the current study that differentiation cannot be made between vulnerable and grandiose traits of narcissism.

Previous research on parasocial relationships frequently discusses loneliness as a reason for using media in this way. Evidence for a relationship between PSRs and loneliness is mixed with some studies suggesting users engage in PSRs to alleviate loneliness (Schiappa, Allen & Gregg, 2007; Baek, Bae & Jang, 2013) and others finding no support for a relationship between these factors (Derrick, Gabriel & Tippin, 2008; Giles, 2002; Rubin, Perse & Powell, 1985). Narcissism as a predictor of guidance and desire dimensions of PSRs may provide limited support for the suggestion that PSRs can ease loneliness. That is, aspects of narcissism have been found to predict loneliness (Rogoza, Zemojtel-Piotrowska, Kwiatkowska, & Kwiatkowska, 2018) suggesting that a combination of the personality trait and motivation for media engagement may influence development of a PSRs.

Favourite character choice (hero vs. villain) also predicted two of four PSR dimensions: guidance and face-to-face desire, providing partial support for hypothesis 4. This suggests that people may be more inclined to perceive heroic characters, as opposed to villains, as personal role models, and may experience a stronger desire to engage with them in the real world. This is supported by previous work (Sanders, 2004) and is theoretically congruent, as heroic characters are often specifically designed to demonstrate socially desirable characteristics, which may provoke reader aspiration

(Eden et al., 2015). According to the uses and gratifications approach users are conscious of their needs and motivations when selecting media for engagement, as well as being aware of the opportunities for engagement (Donohew, Palmgreen & Rayburn, 1987; Katz, Blumler & Gurevitch, 1974). Selection of a hero as a favourite character supports grandiose aspects of narcissism as a predictor of parasocial relationships. Users have selected a hero to form a bond with as they believe the heroic nature of the character to be reflective of their own traits, consequently gratifying the self-enhancing tendencies of these individuals. Equally, choice of a hero may be characteristic of vulnerable narcissists in terms of gratification, as they may seek to establish a parasocial bond with heroic figures in order to mitigate feelings of low self-esteem. However, moderation analysis indicated that, for those whose favourite character is a hero, desire marginally increases with levels of narcissism; and for those whose favourite character is a villain, desire substantially increases with levels of narcissism. This indicates that the impact of narcissism on desire to meet one's character face-to-face may be stronger when a villainous character is chosen. The finding that those high in narcissism display an increased desire to meet a villainous character than those low in narcissism may reflect the risky behaviour consistently attributed to narcissism in the literature (Foster, Shenese, & Goff, 2009). For example, narcissism has been associated with increased ethical, financial, health/safety, recreational and social risk-taking behaviours (Buelow & Brunell, 2014). It is suggested that this tendency towards risk-taking reflects heightened reward sensitivity and impulsivity in these individuals (Foster et al., 2009). Thus, it may be that those high in narcissism are more eager to meet a favourite villainous character than those low in narcissism because, despite the risks involved, they may believe they are able to benefit from the situation. However, further research is required to explore the

specific motivations for different aspects of PSR formation in those high in narcissism before this can be clarified.

Limitations

While this study provides insight into the associations between trait narcissism, PSR engagement and heroic character affiliation, there are a number of limitations that must be considered. Firstly, while participants were instructed to select and respond to the Parasocial Interaction Scale questions in relation to their favourite character from a comic book or graphic novel, reflecting a third-order PSRs, it is possible that participants' engagement with said character beyond the written/illustrated medium may have influenced their responses. As participants were not asked to indicate whether they had also engaged with live-action versions of their favourite comic book character, this possibility cannot be ruled out. Future research should ask participants to indicate all mediums through which they have encountered their favourite character to ascertain any potential differences between second- and third-order PSRs. Secondly, the ratio of hero to villain character favouritism was largely skewed, with only 16% of the sample favouring villains. A more equal distribution of fans may provide further insight into whether the relationship between dark personality traits and PSRs with comic book characters differs based on the hero/villain status of that character. Although, targeted sampling would be needed to ensure a balance between groups. As mentioned previously, the current study did not differentiate between variants of narcissism, but instead employed a measure that taps narcissistic grandiosity (The Dirty Dozen; Jonason & Webster, 2010). Based on the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), the items relating to narcissism focus on characteristics such as a desire for attention and admiration, dominance and entitlement, without consideration of any

potential underlying vulnerabilities (e.g. fluctuating self-esteem). Jauk and colleagues (2017) suggest that extraversion reflects a stark contrast between grandiose and vulnerable narcissism, with the latter being associated with increased levels of introversion. As extraversion has been associated with differences in PSR engagement (e.g. Ingram & Luckett, 2017), it is also possible that vulnerable and grandiose narcissists may interact with fictional characters in varying ways, and with differing motives. Thus, future studies should aim to measure both constructs of narcissism to unpick associations with this dark personality trait further. Finally, the cultural context within which this study was undertaken must also be taken into account. Indeed, research suggests that heroic characteristics presented through comic books are inherently androcentric, promoting hegemonic masculinity (Crawshaw, 2018), and our data does little to counter this argument. The majority of favourite characters chosen by participants were male (83%); with only 14% of heroes and 35% of villains being identified as female characters. This may reflect the number of central characters portrayed as female being significantly lower, with only an estimated 12% of mainstream superhero-based comic books having female protagonists (Cocca, 2016). It therefore must be noted that our findings are reflective of the cultural landscape within which this study was conducted.

Conclusions

Despite these limitations, the current study provides valuable insight into the relationship between the Dark Triad personality traits and the formation of Parasocial relationships with comic book characters. Our results show that, in the context of comic book characters, narcissism is the only dark triad trait that consistently predicts increased guidance seeking, increased desire to engage in face-to-face contact, and elevated feelings

of intimacy and familiarity with one's favourite comic book character. Those who identified with a heroic character also displayed higher levels of narcissism and were more likely to turn to their favourite character for guidance and to express desire for face-to-face interaction with them. This suggests that the formation of parasocial relationships with comic book characters may, to some extent, reflect a self-centred interpersonal process, where readers with a more grandiose sense of self are more inclined to perceive a unique and meaningful bond between the self and the heroes of the comic book universe with which they are engaged. Further, our finding that those high in narcissism are more inclined to desire face-to-face contact with a villainous character than those low in the trait may reflect the risk-taking and sensation-seeking nature of this dark personality trait. Future research should consider motivations for PSR engagement alongside narcissism to determine whether these individuals assimilate with heroic characters because they have a desire to be more like them, or because they consider them to be their equals.

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